

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all previous versions and listings of claims in this application.

Claims:

1-8 (Canceled).

9.(Original) A method of making a radiation detector comprising:

assembling a lower detector assembly;

enclosing the lower detector assembly, a window, and a first solder entity within a processing chamber such that the window is spaced from the lower detector assembly;

reducing pressure within the processing chamber;

increasing temperature within the processing chamber;

maintaining a spaced relation between the window and the lower detector assembly until the first solder entity reaches a melting point;

moving at least one of the window and the lower detector assembly into contact with one another for forming a hermetically sealed compartment using the interposed first solder entity; and

equalizing pressure between the processing chamber and external of the processing chamber while maintaining the reduced pressure within the hermetically sealed compartment.

10.(Original) The method of claim 9 wherein assembling a lower detector assembly comprises:

disposing a plurality of TE elements, a ceramic stage, a radiation sensor, and a getter all in fixed relation to the base, and

electrically connecting the sensor, the getter, and at least two TE elements to associated conductive pathways that pass through feedthroughs, each feedthrough being defined by the base.

11.(Original) The method of claim 9 further comprising reducing the temperature within the processing chamber after moving at least one of the window and the lower detector assembly into contact with one another.

12.(Original) The method of claim 11 wherein reducing the temperature within the processing chamber is characterized by an average rate of temperature reduction that is greater than 20 °C per minute.

13.(Original) The method of claim 9 wherein increasing temperature within the processing chamber includes raising the temperature according to a first and a second heat-up ramp.

14.(Original) The method of claim 13 wherein the second heat-up ramp raises temperature within the processing chamber no more than 20 °C per minute.

15.(Original) The method of claim 13 wherein the maximum temperature of the first heat-up ramp is below a melting temperature of the first solder entity, and the maximum temperature of the second heat-up ramp is at least above the melting temperature of the first solder entity.

16.(Original) The method of claim 9 wherein enclosing the lower detector assembly, a window, and a first solder entity within a processing chamber includes also enclosing a frame and a second solder entity within the processing chamber, and further wherein the frame is spaced from one of the lower detector assembly or the base.

17.(Original) The method of claim 16 wherein the first and second solder entities each comprise a solder pre-form.

18.(Original) The method of claim 16 wherein the first and second solder pre-forms are temporarily fixed to the frame by a press.

19.(Original) The method of claim 9 wherein maintaining a spaced relation between the window and the lower detector assembly includes activating the getter by resistive heating prior to reaching a melting point of the first solder entity.

20.(Original) The method of claim 9 as applied to at least two detectors, both detectors being simultaneously subjected to varying pressures and temperatures within a single processing chamber.

Appl. No. 10/688,708
Amdt. Dated November 3, 2005
Reply to Office Action of August 24, 2005

21-27 (Canceled).